REMARKS

Claims 11-18 remain in the application for consideration of the Examiner.

Reconsideration and withdrawal of the outstanding rejections are respectfully requested in light of the above amendments and following remarks.

Claim 11 has been amended to clarify the invention.

Turning now to the art rejection, Claims 11-13 and 16-18 were rejected under 35 U.S.C. § 103 as be unpatentable over Suzuki in view of Moon; Claims 14 and 15 were rejected under 35 U.S.C. § 103 over Suzuki in view of Moon and Office Notice.

These rejections are respectively traversed.

It is respectfully submitted that Suzuki does not disclose or suggest the presently claimed invention including an expected response including a model reference control technique after an initialization of the hard disk drive and based on an expected response of an actuator to a feed forward control signal.

Applicants agree with the Examiner that such a feature is not taught by Suzuki.

It is respectfully submitted that Moon does not disclose or suggest the presently claimed invention including a digital signal processor utilizing a model reference control technique after an initialization of the hard disk drive system and based on a expected response of the actuator to a feed forward control signal.

The Examiner's attention is directed to col. 14, lines 50-55 of Moon. Here, Moon discloses that the necessary value of C_{ffwd} may be determined by manual characterization of the disk drive or by automated self-characterization during disk drive initialization.

In contrast, the presently claimed invention performs this feature after the initialization.

Official Notice does not cure these defects.

It is respectfully submitted that Claims 11-18 define over the applied art.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,
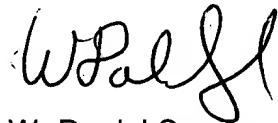
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In the claims:

Claim 11 has been amended as follows:

11.   (Amended) A control system for controlling a hard disk drive having a rotatably supported disk, a read/write head which is movable relative to the disk and which outputs an analog servo wedge signal read from the disk, and an actuator operable to urge movement of the read/write head relative to the disk in response to an analog positioning signal, said control system comprising:

a position-error-signal channel operable to generate an analog position error signal in response to the analog servo wedge signal;

an analog-to-digital converter circuit operable to convert the analog position error signal to a digital position error signal;

a digital signal processor operable to generate digital positioning information as a function of the digital position error signal, said digital signal processor utilizing a model reference control technique <u>after an initialization of said hard disk drive and</u> based on an expected response of the actuator to a feed forward control signal of said hard disk drive in generating the digital positioning information; and

a digital-to-analog converter operable to convert the digital positioning information into the analog positioning signal.